

REMARKS

Claims 1-25 are pending in the present application. Reconsideration is respectfully requested for the following reasons.

Claim 26 has been cancelled without prejudice.

The Office Action rejected independent claim 1 as being anticipated under 35 U.S.C. §102(b) by U.S. Patent No. 5,314,235 issued to Johnson. This rejection is respectfully traversed for the following reasons. In order for a claim to be anticipated under 35 U.S.C. §102, each and every element as set forth in the claim must be found in a single prior art reference. MPEP §2131.

Claim 1 recites, and the references do not teach, a back construction for a seat including, among other things, a bladder (39') attached to a flexible back panel (26) so that when the bladder expands in one direction and simultaneously shortens in a different direction, the back panel is flexed to a different shape (Figs. 5A and 5B). The Office Action stated that Johnson '235 includes a flexible back panel (10). However, Johnson '235 does not include a flexible back panel that may be flexed to a different shape. Rather, what is referred to in Johnson '235 is simply a "portable back support" (10) having a base plate (28). Further, Johnson '235 does not recite that the base plate (28) is flexible in any manner. Still further, as shown in Fig. 3, when the bladder (24) is inflated, neither the base plate (28) nor the portable back support (10) change shape or flex in any manner. This is clearly depicted in Figs. 3 and 4 which show the base plate shape being unchanged before and after bladder inflation. Further, there is no suggestion in Johnson '235 to include a flexible back panel as defined in claim 1. Still further, Johnson '235 teaches away from this flexibility as defined in claim 1 due to the Johnson bladder being re-positionable within the back support by ring 78. Because the bladder (24) is not affixed to the base plate, the bladder cannot apply the required forces to change the shape of the base plate. Therefore Applicant submits that claim 1 is in condition for allowance.

Dependent claims 2, 3 and 4 are dependent on base claim 1 and are allowable for that reason.

The Office Action rejected claims 5, 6, and 19 as being unpatentable over Johnson '235, in view of Ishida et al., No. 4,807,931. This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedures §706.02(j), in order to establish a *prima facie* of obviousness, three basic criteria must be met. Firstly, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of

ordinary skill in the art, to modify the references or to combine reference teachings. Secondly, there must be a reasonable expectation of success. Thirdly, the prior art references must teach or suggest all of the claim limitations.

Claims 5, 6, and 19 define a bladder (39') attached to a flexible back panel (26) so that when the bladder expands in one direction and simultaneously shortens in a different direction, the back panel is flexed to a different shape, and further includes an air pump operably connected to the bladder (claim 19), wherein the bladder includes multiple pleats that extend in a direction perpendicular to the different direction (claim 5), and wherein the pleats extend horizontally (claim 6). Neither Johnson '235 nor Ishida et al. '931 provide any suggestion or motivation to modify or combine their structures to arrive at the claimed invention. Nor do the references teach any reason to add a back panel that can be flexed to a different shape. Notably, there are reasons not to add a flexible back panel as Ishida '931 recites a lumbar support apparatus for a vehicle seat (24). A vehicle seat back must be rigid and not flexible in nature due to the safety issues that would result from a flexible vehicle seat. Namely, in a collision the seat would not offer enough support to the occupant and could result in spinal injuries. Applicant respectfully reminds the Examiner that in order to render a claimed invention unpatentable, the art must reasonably teach or suggest the claimed invention. In other words, the claimed invention cannot be used as a template to piece together teachings of prior art. *In re Fritch*, 23 U.S.P.Q.2d 1780, 1783 (Fed. Circuit 1992).

Secondly, even if the references are combined, there is no reasonable expectation of success. The references cited by the Office Action cannot be combined to arrive at the claimed invention. For the reasons discussed above, Ishida et al. '931 cannot utilize a flexible back panel due to safety issues.' Further, as explained with reference to claim 1, Johnson '235 shows the bladder (24) being movably positioned within a cavity (Fig. 7) and therefore is not attached to any back plate. As a result, it is not capable of forcing the flexure of a base plate. Again with regard to claim 1, Johnson '235 specifically shows a base plate that is vertically straight when the bladder is both in an inflated and deflated position. Therefore, the references cited by the Office Action cannot be combined to arrive at the claimed invention. This is in great part due to the fact that the references do not teach or suggest all of the claim limitations as required by the third criteria of the test for obviousness.

Because claims 5, 6, and 19 all depend from allowable claim 1 and further define nonobvious combinations thereof as described above, Applicants submit that claims 5, 6, and 19

cannot be rendered obvious over Johnson '235 in view of Ishida '931 and are in condition for allowance.

Claim 7 was rejected as being unpatentable over Johnson '235 in view of Gillaspie No. 5,074,286. Claim 7 is dependent on allowable base claim 1 and is allowable for that reason. In addition, Claim 7 is respectfully traversed for substantially the same reasons as discussed above with regard to claim 1. Further, the bladder (22) mentioned in Gillaspie '286 is a bladder used for containing a water spray rather than for inflating. As mentioned in Gillaspie '286, the bladder is generally a waterbed mattress, which is used to hold an occupant while spray heads (40) release a stream of water at the occupant's back. Therefore, the occupant is supported along the entire bladder. As such, inflation of the entire bladder would not effectuate localized lumbar support. Applicants respectfully submit that claim 7 cannot be rendered obvious over Johnson '235 in view of Gillaspie '286. Therefore, claim 7 is in condition for allowance.

The Office Action rejected claim 11 as being unpatentable over Johnson '235 in view of Rhodes, Jr. No. 6,203,105. This rejection is respectfully traversed.

Claim 11 is dependent on allowable base claim 1 and is allowable for that reason. In addition, Claim 11 is respectfully traversed for substantially the same reasons as discussed above with regard to claim 1. Further, Rhodes '105 again discloses a vehicle seat. As discussed above with regard to Ishida '931, a vehicle seat will not be equipped with a flexible back panel due to safety requirements. Therefore, Rhodes '105 teaches away from claim 11. Still further, Rhodes '105 discusses a head rest (10) which incorporates an air bladder (10b) into the head rest for safety purposes. Again, Rhodes '105 teaches away from a back panel where, when the bladder expands in one direction it simultaneously shortens in a different direction. This is because if Rhodes '105 incorporated this feature, as the head restraint bladder was inflated the head rest would move downward, thereby being moved out of the correct position to restrain a vehicle occupant's head during a collision. Applicants respectfully submit that claim 11 is not rendered obvious over Johnson '235 in view of Rhodes '105 and accordingly is in condition for allowance.

The Office Action rejected independent claim 1 as being unpatentable over Peterson et al. No. 6,079,785 in view of Johnson '235. Claim 1 recites a bladder (39') attached to the flexible back panel (26) so that when the bladder expands in one direction and simultaneously shortens in a different direction, the back panel is flexed to a different shape. Neither Peterson et al. '785 or Johnson '235 provide any suggestion or motivation to modify or combine their structures to

arrive at the claimed invention. In order to render a claimed invention unpatentable, the art must reasonably teach or suggest the claimed invention. In other words, the claimed invention cannot be used as a template to piece together teachings of prior art. *In re Fritch*, 23 U.S.P.Q.2d 1780, 1783 (Fed. Circuit 1992).

Secondly, even if the references are combined, there is no reasonable expectation of success because the references cited by the Office Action cannot be combined to arrive at the claimed invention. This is in part due to the fact that the references do not teach or suggest all of the claim limitations as required by the third criteria of the test for obviousness. Specifically, Peterson et al. '785 does not disclose a bladder attached to a flexible back panel, that when the bladder expands in one direction and simultaneously shortens in a different direction, the back panel is flexed to a different shape. Additionally, Peterson et al. '785 recites a rigid lumbar support (24) which cannot be inflated, and is adjusted by moving itself in a vertical direction rather than in a horizontal direction as recited in claim 1 of the current invention. Therefore, even if Johnson '235 was combined with Peterson et al. '785, the resulting product would not function because the bladder of Johnson '235 would not operate utilizing the lumbar support of Peterson et al. '785. Applicants respectfully submit that claim 1 cannot be rendered obvious over Peterson et al. '785 in view of Johnson '235. Therefore, claim 1 is in condition for allowance.

Claims 8, 9, and 10 are dependent on allowable claim 1 and are allowable for that reason. Moreover, Applicant respectfully submits that these claims are allowable since they define nonobvious combinations of the subject matter of claim 1. In particular, the prior art does not disclose or suggest a back construction for a seating unit comprising a bladder attached to the flexible back panel so that when the bladder expands in one direction and simultaneously shortens in a different direction the back panel is flexed to a different shape, wherein the back panel includes a lumbar section that is flexible (claim 8), wherein further the back panel includes a stiff top section and a stiff bottom section connected together by the lumbar section (claim 9), and further, wherein the lumbar section includes vertically-extending side strips that flex and includes horizontally-extending strips that extend between the side strips (claim 10). Therefore, Applicants respectfully submit that that claims 1, 8, 9 and 10 cannot be rendered obvious over Peterson et al. '785 in view of Johnson '235.

The Office Action rejected independent claim 20 as being unpatentable over Peterson et al. '785 in view of Ishida et al. '931. This rejection is respectfully traversed.

Claim 20 defines a back construction for a seating unit comprising a constrictable energy mechanism operably coupled to the flexible back panel at spaced apart locations so that, when the energy mechanism is energized and constricts, the back panel is flexed to a different shape. Neither Peterson et al. '785 nor Ishida et al. '931 provide any suggestion or motivation either to modify their structures or to combine their structures to arrive at the claimed invention. Further, even if the references are combined, there is no reasonable expectation of success. The references cited by the Office Action cannot be combined to arrive at the claimed invention. Specifically, Peterson et al. '785 does not utilize a bladder in conjunction with its lumbar support, and further, is adjusted in a vertical direction with the lumbar support being stretched lengthwise as it is moved upwardly. Therefore, even if the bladder of Ishida et al. '931 was used in conjunction with Peterson et al. '785, the stretching of the lumbar support, as the support is being moved upward in Peterson '785, would render the bladder of Ishida et al. '931 inoperable as it would stretch the bladder horizontally; thereby damaging the bladder, or at a minimum, reducing the effective volume of air within the bladder contrary to the intended purpose of the bladder. Therefore, Peterson et al. '785 teaches away from being combined with Ishida et al. '931.

Claims 21-24 are dependent on allowable base claim 20 and are allowable for that reason. Moreover, Applicant submits that these claims are allowable since they define nonobvious combinations of the subject matter of claim 20. In particular, the prior art does not disclose or suggest a back construction for a seating unit comprising a constrictable energy mechanism operably coupled to the flexible back panel at spaced apart locations so that, when the energy mechanism is energized and constricts, the back panel is flexed to a different shape, wherein the back panel is slidably attached to the back frame at a bottom location (claim 21), wherein the energy mechanism includes an inflatable bladder (claim 22), wherein the bladder includes transverse pleats subdividing a length of the bladder into a plurality of subcompartments (claim 23), and wherein the back panel includes a front surface and the energy mechanism is laid on, and against the front surface (claim 24). Therefore, it is respectfully submitted that dependent claims 21-24 are in condition for allowance.

Claim 15 was rejected as being unpatentable over Peterson et al. '785 in view of Johnson '235 and Heidmann et al. No. 6,382,719. This rejection is respectfully traversed.

Dependent claim 15 is dependent on allowable claim 1 and is for that reason, also allowable. Moreover, Applicant respectfully submits that this claim is allowable since it defines a nonobvious combination of the subject matter of claim 1 and is respectfully traversed for substantially the same reasons as discussed above with regard to claim 1. Namely, these references provide no suggestion or motivation to either modify or combine their structures to arrive at the claimed invention and further, even if the references were combined, there is no reasonable expectation of success. As mentioned above, Peterson et al. '785 cannot be combined with Johnson '235 to arrive at the claimed invention. Further if the references are combined, there is no expectation of success, as the Johnson '235 bladder cannot be combined with the Peterson et al. '785 rigid lumbar support for the reasons outlined previously. Therefore, Applicants respectfully submit that claim 15 cannot be rendered obvious over Peterson et al. '785 in view of Johnson '235 in view of Heidmann et al. '719.

Claim 16 was rejected as being unpatentable over Johnson '235 in view of Schrewe et al. No. 5,758,925. Dependent claim 16 is dependent on base claim 1 and is allowable for that reason.

The Office Action rejected independent claim 25 as being unpatentable over Knoblock No. 6,394,546, in view of Ishida et al. '931. This rejection is also respectfully traversed.

Claim 25 recites a shape changeable component for a furniture unit comprising, among other things, an inflatable member operably attached to a flexible plastic panel and lying on the curvilinear surface so that when the inflatable member expands in one direction and simultaneously shortens in a different direction the plastic panel is flexed to a different shape. Neither Knoblock et al. '546 nor Ishida et al. '931 provide any suggestion or motivation to modify their structures nor to combine their structures to arrive at the claimed invention. Secondly, even if the references are combined, there is no reasonable expectation of success. Knoblock et al. '546 recites that the lumbar device (35) is sufficiently stiff to maintain its vertical cross-sectional shape; the shape of the lumbar region is changed by simply moving the lumbar device vertically up and down. Therefore, even if Ishida et al. '931 was combined with Knoblock '546, the claimed invention would not be arrived at due to the inability of Knoblock et al. '546 to change or flex in a vertical direction as defined by the current invention. Therefore, Applicants respectfully submit that claim 25 cannot be rendered obvious over Knoblock '546 in view of Ishida '931 and is in condition for allowance.

Dependent claim 26 has been cancelled without prejudice.

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Dependent claims 17 and 18 were rejected over Johnson and Green '219, however, they are dependent on allowable base claim 1 and are allowable for that reason.

Claims 12-14 were restricted out of the present application, but are dependent upon an allowable base claim. Therefore, the restriction of claims 12-14 should be withdrawn, and claims 12-14 allowed along with their base claim.

It is believed that the above represents a complete response to the official Office Action and reconsideration is requested, specifically, Applicants respectfully submit that the application is in condition for allowance and respectfully request allowance thereof.


Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The first page of the marked-up version is captioned "Version with Markings to Show Changes Made" with any additional text underlined and deleted [bracketed].

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 3 has been amended as follows:

3. (Amended) The back construction defined in claim 2, wherein the one [dimension] direction is parallel a thickness direction.